



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,267	02/27/2002	Hidetoshi Mishima	1560-0376P	6365

2292 7590 12/29/2006  
BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER
----------

TOPGYAL, GELEK W

ART UNIT	PAPER NUMBER
----------	--------------

2621

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	12/29/2006	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 12/29/2006.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/083,267	<b>Applicant(s)</b> MISHIMA ET AL.	
	<b>Examiner</b> Gelek Topgyal	<b>Art Unit</b> 2621	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 October 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 50-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 50-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 08/533,109.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 10/13/2006 have been fully considered but they are not persuasive.
2. In re pages 6-7, the applicants present the sole argument regarding the 102(e) rejection of independent **claim 50** that Fujinami does not teach "address information identifying an end of the I-picture data contained in a corresponding video data unit" as required by the claim.
3. In response, the examiner respectfully disagrees. Fujinami teaches entry packet information that is used to indicate entry points for video packets that includes an I-picture. In order for Fujinami's system to allow high speed search during playback, the system has to reproduce the entire I-picture data, from the start address signifying the beginning of the I-picture data, to the end address of the I-picture data, which signifies the end address. Therefore the entry packet of Fujinami does indeed have address information identifying the end of the I-picture data.
4. In re second paragraph of page 8, the applicants allege that 102(e) rejected claims 51-54 and newly added **claims 55-64** are believed to define over Fujinami for the reasoning as stated above in paragraph 2 with regards to claim 50.
5. In response, for the same reasons as discussed above in paragraph 3, the examiner maintains the rejection for claims 51-54. The newly added claims 55-64 are also rejected for the same reasons as discussed in paragraph 3 above. See below for the prior art rejection of newly added claims 55-64.

Art Unit: 2621

6. In re page 8, the applicants allege that the **Double Patenting rejected claims 50-54** are believed to define over US Patent 6,009,236/US Patent 6,134,382 in view of Fujinami for the same reasons as stated above in paragraph 2.

7. In response, for the same reasons as discussed above in paragraph 3, claims 50-54 remain Double Patenting rejected.

8. In re page 9, the applicants allege that the **Double Patenting rejected claims 50-54** are believed to define over US Patent 6,549,717 for the same reasons as stated above in paragraph 2.

9. In response, claim 2 of US Patent 6,549,717 states "address information corresponding to a sector for at least the next following said I picture in said video block". The limitations as discussed in Fujinami (paragraph 3 above) also performs the same function as claim 2 of US Patent 6,549,717, therefore, the discussion in paragraph 3 above also applies to claim 2 of US Patent 6,549,717. Therefore, claims 50-54 remain Double Patenting rejected.

10. In re page 9, the applicants allege that the **Double Patenting rejected claims 50-54** are believed to define over copending application 10/083,475 for the same reasons as discussed above in paragraph 2.

11. In response, claim 56 of copending application 10/083,475 states "control information includes address information of said I-picture". The limitations as discussed in Fujinami (paragraph 3 above) also performs the same function as claim 56 of copending application 10/083,475, therefore, the discussion in paragraph 3 above also

applies to claim 2 of US Patent 6,549,717. Therefore, claims 50-54 remain Double Patenting rejected.

### ***Double Patenting***

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. **Claims 50-64** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,009,236 in view of Fujinami et al. (US 5,455,684).

**Regarding claim 50** of this application, claim 1 of U.S. Patent No. 6,009,236 recites a digital video signal record and playback device for recording and playing back on a recording medium in units of several frames a digital video signal coded in units of several frames in which an I picture for an intra-frame coding, a P picture for a motion compensation prediction in a forward direction, and a B picture for the motion

Art Unit: 2621

compensation prediction by using as reference pictures the I picture and the P picture located before and after in time, said device comprising: means for dividing one frame portion of video data into  $n$  areas ( $n > 1$ ) with respect to at least the I picture for intra-frame coding at the time of recording; means for recording a central area by giving recording priority on the recording medium to the central area with respect to the I picture frame which is divided into the  $n$  areas, while at the same time recording position information representative of the recording position on the recording medium of divided 1 through  $n$  areas; means for reading only the central area located at the center of the I picture from the recording medium at the time of special playback; a buffer memory for storing data in the central area which is read; and means for outputting only data in the central area which is read; but fails to teach a disk (recording medium) stored with video data units comprising a sequence of I, P, and B frame preceded with a control data packets which includes the address information of a previous video data unit and a next video data unit, and address information identifying and end of said I-picture data contained in the corresponding video data unit.

In an analogous art, Fujinami et al. teaches a recording and reproducing apparatus capable of recording a stream that includes at least one pack onto a recording medium, e.g. an optical disk (Fig. 3). The pack includes a pack header followed by several video packets. The video packets include a header (video\_packet\_header) followed by a frame of a video (I,P or B frame). Fujinami et al. teaches in his system to have the ability to add entry points to a video stream when an I-frame is detected during a recording process, wherein an entry packet is added to the

Art Unit: 2621

multiplexed stream (Figs. 13-14). The entry packet contains the location of the previous and the next video data units (Fig. 14, -1, -2, -3, +1, +2, +3), which are pointers pointing to the corresponding video packets (Col. 12, lines 28-57). *Furthermore, Fujinami teaches entry packet information that is used to indicate entry points for video packets that includes an I-picture. In order for Fujinami's system to allow high-speed search during playback, the system has to reproduce the entire I-picture data, from the start address signifying the beginning of the I-picture data, to the end address of the I-picture data, which signifies the end address. Therefore the entry packet of Fujinami does indeed have address information identifying the end of the I-picture data.*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the address information of the previous, next video data packets *and address of end of I-picture data* in the entry packet stored on a recording medium (disk) as taught by Fujinami et al. into claim 1 of U.S. Patent No. 6,009,236 to allow for trick play (fast forward or fast reverse) abilities during playback so that a user can watch a desired sequence of video stored on the recording medium.

**Apparatus for reproducing claim 51** of this application is rejected over *device* claim 1 of U.S. Patent No. 6,009,236 for the same reasons as discussed in disk claim 50 of this application above.

**Method for reproducing claim 52** of this application is rejected for the same reasons as discussed above in apparatus for reproducing claim 51 of this application.

**Method for recording claim 53** of this application is rejected over device claim 1 of U.S. Patent No. 6,009,236 for the same reasons as discussed in disk claim 50 of this

application above and additionally, the recording and playback device of U.S. Patent No. 6,009,236 can practice the method for recording as claimed.

**Storage Medium claim 54** of this application is rejected for the same reasons as discussed in disk claim 50 and method for recording claim 53 of this application above.

**Regarding storage medium claim 55** of this application, Fujinami teaches the claimed wherein said control information includes control information include bit rate information of said digital video information (Fig. 3, Pack Header teaches the multiplex rate of the information in the pack).

**Method for recording claim 56** of this application is rejected for the same reasons as discussed in method for recording claim 53 and storage medium claim 55 of this application above.

**Storage medium claims 57 and 58** of this application are rejected for the same reasons as discussed in claim 50 of this application above.

**Reproducing apparatus claim 59** of this application is rejected for the same reasons as discussed in claim 50 of this application above, and furthermore, cols. 15-16 discusses the apparatus for reproducing the data on a disk (DSM 10).

**Method claim 60** of this application is rejected for the same reasons as discussed above in apparatus claim 59 of this application.

**Method for recording claim 61 and 62** of this application are rejected for the same reasons as discussed in claim 50 of this application above. Furthermore, the cited areas of Fujinami et al. teaching the limitations in claim 50 of this application above applies to a recording apparatus implementing the recording method as claimed.



**Claim 63** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of Fujinami is used for fast-forward and fast-rewind playback, which reads on the limitations claimed.

**Claim 64** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of Fujinami is used for fast-forward or fast-rewind playback, which reads on the limitations claimed.

14. **Claims 50-64** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 6 of U.S. Patent No. 6,134,382 in view of Fujinami et al. (US 5,455,684).

**Regarding claim 50** of this application, claim 6 of U.S. Patent No. 6,134,382 recites a digital video signal record and playback device for recording and playing back on a recording medium in units of several frames a digital video signal coded in units of several frames in which an I picture for an intra-frame coding, a P picture for motion compensation prediction in a forward direction, and a B picture for motion compensation prediction by using as reference pictures the I picture and the P picture located before and after in time, said device comprising: means for dividing one frame portion of video data into  $n$  areas ( $n > 1$ ) with respect to at least the I picture and the P picture at the time of recording, and coding the data in the area unit which is divided into  $n$  areas; means for giving recording priority on the recording medium to the I picture out of the I picture and the P picture which are divided into the  $n$  areas, and recording the position of the area for record starting, by scrolling in units of the I and the P picture frame when

Art Unit: 2621

recording in an area unit, the I picture and the P picture divided into n areas, while at the same time recording position information representing the record position on the recording medium of each area in a group of pictures (GOP); means for reading from the recording medium at least the I picture or the P picture at the time of the special playback; a buffer memory for storing data of the I picture or the P picture which is read; means for outputting the data of the I picture or the P picture which is read, in units of frames as the special playback picture; and interpolating means for interpolating an area which cannot be read using data of a preceding screen when the whole I picture or the whole P picture area cannot be read; but fails to teach a disk (recording medium) stored with video data units comprising a sequence of I, P, and B frame preceded with a control data packets which includes the address information of a previous video data unit and a next video data unit, and address information identifying and end of said I-picture data contained in the corresponding video data unit.

In an analogous art, Fujinami et al. teaches a recording and reproducing apparatus capable of recording a stream that includes at least one pack onto a recording medium, e.g. an optical disk (Fig. 3). The pack includes a pack header followed by several video packets. The video packets include a header (video\_packet\_header) followed by a frame of a video (I,P or B frame). Fujinami et al. teaches in his system to have the ability to add entry points to a video stream when an I-frame is detected during a recording process, wherein an entry packet is added to the multiplexed stream (Figs. 13-14). The entry packet contains the location of the previous and the next video data units (Fig. 14, -1, -2, -3, +1, +2, +3), which are pointers pointing

to the corresponding video packet (Col. 12, lines 28-57). *Furthermore, Fujinami teaches entry packet information that is used to indicate entry points for video packets that includes an I-picture. In order for Fujinami's system to allow high-speed search during playback, the system has to reproduce the entire I-picture data, from the start address signifying the beginning of the I-picture data, to the end address of the I-picture data, which signifies the end address. Therefore the entry packet of Fujinami does indeed have address information identifying the end of the I-picture data.*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the address information of the previous, next video data packets *and address of end of I-picture data* in the entry packet stored on a recording medium (storage medium) as taught by Fujinami et al. into claim 6 of U.S. Patent No. 6,134,382 to allow for trick play (fast forward or fast reverse) abilities during playback so that a user can watch a desired sequence of video stored on the recording medium.

**Apparatus for reproducing claim 51** of this application is rejected over device claim 6 of U.S. Patent No. 6,134,382 for the same reasons as discussed in disk claim 50 of this application above.

**Method for reproducing claim 52** of this application is rejected for the same reasons as discussed in apparatus claim 51 of this application above<sup>1</sup>.

**Method for recording claim 53** of this application is rejected over device claim 6 of U.S. Patent No. 6,134,382 for the same reasons as discussed in disk claim 50 of this

application above and additionally, the recording and playback device of U.S. Patent No. 6,134,382 can practice the method for recording as claimed.

**Storage Medium claim 54** of this application is rejected for the same reasons as discussed in disk claim 50 and method for recording claim 53 of this application above.

**Regarding storage medium claim 55** of this application, Fujinami teaches the claimed wherein said control information includes control information include bit rate information of said digital video information (Fig. 3, Pack Header teaches the multiplex rate of the information in the pack).

**Method for recording claim 56** of this application is rejected for the same reasons as discussed in method for recording claim 53 and storage medium claim 55 of this application above.

**Storage medium claims 57 and 58** of this application are rejected for the same reasons as discussed in claim 50 of this application above.

**Reproducing apparatus claim 59** of this application is rejected for the same reasons as discussed in claim 50 of this application above, and furthermore, cols. 15-16 discusses the apparatus for reproducing the data on a disk (DSM 10).

**Method claim 60** of this application is rejected for the same reasons as discussed above in apparatus claim 59 of this application.

**Method for recording claim 61 and 62** of this application are rejected for the same reasons as discussed in claim 50 of this application above. Furthermore, the cited areas of Fujinami et al. teaching the limitations in claim 50 of this application above applies to a recording apparatus implementing the recording method as claimed.

**Claim 63** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of Fujinami is used for fast-forward and fast-rewind playback, which reads on the limitations claimed.

**Claim 64** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of Fujinami is used for fast-forward or fast-rewind playback, which reads on the limitations claimed.

15. **Claims 50-54 and 57-64** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,549,717. Although the conflicting claims are not identical, they are not patentably distinct from each other because

**Regarding claim 50** of this application, claim 2 of U.S. Patent No. 6,549,717 recites an optical disk, in which video data obtained by coding a digital video signal by the use of a motion compensation prediction and a DCT is recorded, the video data comprising I pictures which are intra-frame coded pictures, P pictures which are one direction prediction coded pictures and B pictures which are bi-directional prediction coded pictures, wherein said video data includes video data blocks, each including a sequence of at least one each of an I picture, a P picture and a B picture, wherein a system stream including a video packet formed of a said video data block and a private packet having a stream ID of a private stream is recorded on said optical disk, wherein address information corresponding to a sector for at least the next following said I picture in said video data block is recorded in said private packet, and wherein said

private packet in which said address information is recorded is arranged so that said private packet is followed by said video data block containing said I picture without another I picture disposed therebetween. It is noted that claim 50 of this application teaches an storage medium with the information recorded thereon and is broader than and encompass claim 2 of U.S. Patent No. 6,549,717 and; therefore, obviousness-type double patenting rejected is applied.

**Apparatus for reproducing claim 51** of this application is rejected over disk claim 2 of U.S. Patent No. 6,549,717 for the same reasons as discussed in disk claim 50 of this application above and additionally, the disk of U.S. Patent No. 6,549,717 can be reproduced by the apparatus for reproducing as claimed.

**Method for reproducing claim 52** of this application is rejected for the same reasons as discussed in apparatus claim 51 of this application above.

**Method for recording claim 53** of this application is rejected over claim 2 of U.S. Patent No. 6,549,717 for the same reasons as discussed in disk claim 50 of this application above and additionally, the disk of U.S. Patent No. 6,549,717 can be created by the method for recording as claimed.

**Storage Medium claim 54** of this application is rejected for the same reasons as discussed in disk claim 50 and method for recording claim 53 of this application above.

**Storage medium claims 57 and 58** of this application are rejected for the same reasons as discussed in claim 50 of this application above.

**Reproducing apparatus claim 59** of this application is rejected for the same reasons as discussed in claim 50 of this application above, and furthermore, cols. 15-16 discusses the apparatus for reproducing the data on a disk (DSM 10).

**Method claim 60** of this application is rejected for the same reasons as discussed above in apparatus claim 59 of this application.

**Method for recording claim 61 and 62** of this application are rejected for the same reasons as discussed in claim 50 of this application above. Furthermore, the cited areas of Fujinami et al. teaching the limitations in claim 50 of this application above applies to a recording apparatus implementing the recording method as claimed.

**Claim 63** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of claim 2 of U.S. Patent No. 6,549,717 is used for playback purposes, which can be fast-forward and fast-rewind playback.

**Claim 64** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of claim 2 of U.S. Patent No. 6,549,717 is used for playback purposes, which can be fast-forward and fast-rewind playback.

16. **Claims 55 and 56** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,549,717 in view of Fujinami et al. (US 5,455,684).

**Regarding storage medium claim 55** of this application, claim 2 of U.S. Patent No. 6,549,717 recites an optical disk, in which video data obtained by coding a digital video signal by the use of a motion compensation prediction and a DCT is recorded, the video data comprising I pictures which are intra-frame coded pictures, P pictures which are one direction prediction coded pictures and B pictures which are bi-directional prediction coded pictures, wherein said video data includes video data blocks, each including a sequence of at least one each of an I picture, a P picture and a B picture, wherein a system stream including a video packet formed of a said video data block and a private packet having a stream ID of a private stream is recorded on said optical disk, wherein address information corresponding to a sector for at least the next following said I picture in said video data block is recorded in said private packet, and wherein said private packet in which said address information is recorded is arranged so that said private packet is followed by said video data block containing said I picture without another I picture disposed therebetween. However fails to teach wherein said control information includes bit rate information of said digital video information.

Fujinami teaches the claimed wherein said control information includes control information include bit rate information of said digital video information (Fig. 3, Pack Header teaches the multiplex rate of the information in the pack).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the feature of storing bit rate information in the packet header data as taught by Fujinami so that information recorded can be recorded and reproduced at a specific bit rate.



**Method for recording claim 56** of this application is rejected for the same reasons as discussed in method for recording claim 53 and storage medium claim 55 of this application above.

17. **Claims 50-54 and 57-64** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 56-60, respectively of copending Application No. 10/083,475. Although the conflicting claims are not identical, they are not patentably distinct from each other because

**Regarding claim 50** of this application, claim 56 of copending Application No. 10/083,475 recites a storage medium containing digital video information obtained by coding a digital video signal using motion compensation prediction, said digital video information comprising intra-coded I-picture data, predictive-coded P-picture data and bidirectionally predictive-coded B-picture data: said digital video information comprising video data units, each of said video data units comprising a sequence of said I-picture data, said P-picture data and said B-picture data; wherein each of said video data units has a control data packet located before said video data unit, ~~said control data packet~~ containing control information for ~~presenting~~ reproducing said digital video information, wherein said control information includes address information of said I-picture data and [[a]] P-picture data in said video data unit[[.]], wherein a reproducing apparatus accesses said control data packet during playback operation and uses said control information included in said control data packet for reproducing said digital video information. It is noted that claim 50 of this application is broader than and encompass claim 56 of

Art Unit: 2621

compending Application No. 10/083,475 and; therefore, obviousness-type double patenting rejected is applied.

**Regarding claim 51** of this application, claim 57 of compending Application No. 10/083,475 recites an apparatus for reproducing digital video information contained in a storage medium according to claim 56, wherein said control information is used to present said digital video information.

**Regarding claim 52** of this application, claim 58 of compending Application No. 10/083,475 recites a method for reproducing digital video information contained in a storage medium according to claim 56, wherein said control information is used to present said digital video information.

**Regarding claim 53** of this application, claim 59 of compending Application No. 10/083,475 recites a method for recording digital video information on a storage recording medium, said digital video information being obtained by coding a digital video signal using motion compensation prediction, said digital video information comprising intra-coded I-picture data, predictive-coded P-picture data and bidirectionally predictive-coded B-picture data, said method comprising: forming video data units, each of said video data units comprising a sequence of said I-picture data, said P-picture data and said B-picture data, creating a control data containing control information for reproducing presenting said digital video information, said control data information including address information of said I-picture data and a P-picture data, forming a system stream comprising said video data units, each of said video data units having said control data, and recording said system stream on said storage recording medium.

It is noted that claim 53 of this application is broader than and encompass claim 59 of copending Application No. 10/083,475 and; therefore, obviousness-type double patenting rejected is applied.

**Regarding claim 54** of this application, claim 60 of copending Application No. 10/083,475 recites a storage medium containing digital video information recorded by a method according to claim 59.

**Storage medium claims 57 and 58** of this application are rejected for the same reasons as discussed in claim 50 of this application above.

**Reproducing apparatus claim 59** of this application is rejected for the same reasons as discussed in claim 50 of this application above, and furthermore, cols. 15-16 discusses the apparatus for reproducing the data on a disk (DSM 10).

**Method claim 60** of this application is rejected for the same reasons as discussed above in apparatus claim 59 of this application.

**Method for recording claim 61 and 62** of this application are rejected for the same reasons as discussed in claim 50 of this application above. Furthermore, the cited areas of Fujinami et al. teaching the limitations in claim 50 of this application above applies to a recording apparatus implementing the recording method as claimed.

**Claim 63** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of claim 56 of copending Application No. 10/083,475 is used for playback purposes, which can be fast-forward and fast-rewind playback.

**Claim 64** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of claim 56 of copending Application No. 10/083,475 is used for playback purposes, which can be fast-forward and fast-rewind playback.

18. **Claims 55 and 56** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 56 of copending Application No. 10/083,475 in view of Fujinami (US 5,455,684).

**Regarding claim 55** of this application, claim 56 of copending Application No. 10/083,475 recites a storage medium containing digital video information obtained by coding a digital video signal using motion compensation prediction, said digital video information comprising intra-coded I-picture data, predictive-coded P-picture data and bidirectionally predictive-coded B-picture data: said digital video information comprising video data units, each of said video data units comprising a sequence of said I-picture data, said P-picture data and said B-picture data; wherein each of said video data units has a control data packet located ~~before said video data unit, said control data packet~~ containing control information for ~~presenting~~ reproducing said digital video information, wherein said control information includes address information of said I-picture data and [[a]] P-picture data in said video data unit[[.]], wherein a reproducing apparatus accesses said control data packet during playback operation and uses said control information included in said control data packet for reproducing said digital video information.

Fujinami teaches the claimed wherein said control information includes control information include bit rate information of said digital video information (Fig. 3, Pack Header teaches the multiplex rate of the information in the pack).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the feature of storing bit rate information in the packet header data as taught by Fujinami so that information recorded can be recorded and reproduced at a specific bit rate.

**Method for recording claim 56** of this application is rejected for the same reasons as discussed in claims 53 and 55 of this application above.

This is a provisional obviousness-type double patenting rejection.

### ***Claim Rejections - 35 USC § 101***

19. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

20. **Claims 50, 54, 55, 57, 58 and 62** are rejected under 35 U.S.C. 101 because it is directed to non-statutory subject matter as follows.

**Claims 50, 54, 55, 57, 58 and 62** defines a "storage medium" embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e. "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be

realized" – Guidelines Annex IV). That is the scope of the presently claimed "storage medium" can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

***Claim Rejections - 35 USC § 102***

21. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

22. **Claims 50-64** are rejected under 35 U.S.C. 102(e) as being anticipated by Fujinami et al. (US 5,455,684).

**Regarding claim 50**, Fujinami et al. teaches a storage medium containing digital video information obtained by coding a digital video signal using motion compensation prediction, said digital video information comprising intra-coded I-picture data, predictive-coded P-picture data and bidirectionally predictive-coded B-picture data (Fig. 3, and 6 shows a sequence of coded frames of I, P and B frames, and col. 12, lines 12-27 discusses intra (I) and inter frames P or B (disclosed as no-I frame)):

said digital video information comprising video data units, each of said video data units comprising a sequence of said I-picture data, said P-picture data and said B-picture data (Fig. 3, 6, and col. 12, lines 12-27, discusses intra (I) and inter frames P or B (disclosed as no-I frame) to be sequenced in a pack. The pack includes a pack header followed by several video packets. The video packets include a header (video\_packet\_header) followed by a frame of a video (I, P, or B frame)),

wherein each of said video data units has a control data packet ~~located before said video data unit, said control data packet~~ containing control information for ~~presenting~~ reproducing said digital video information (Fig. 13, 14 shows that the entry pack is located before video data unit, and col. 12, lines 28-57 discloses data "-1,-2,-3,+1,+2,+3" within the entry pack which stores the location of previous and next video data units),

wherein said control information includes start address of a previous video data unit and a next video data unit, and address information identifying and end of said I-picture data contained in the corresponding video data unit. (Fig. 13, 14, and col. 12, lines 28-57, teaches that the entry packet contains the location of the previous and the next video data units (Fig. 14, -1, -2, -3, +1, +2, +3), which are pointers pointing to the corresponding video data units). *Furthermore, Fujinami teaches entry packet information that is used to indicate entry points for video packets that includes an I-picture. In order for Fujinami's system to allow high-speed search during playback, the system has to reproduce the entire I-picture data, from the start address signifying the beginning of the I-picture data, to the end address of the I-picture data, which signifies*

*the end address. Therefore the entry packet of Fujinami does indeed have address information identifying the end of the I-picture data.*

wherein a reproducing apparatus accesses said control data packet during playback operation and uses said control information included in said control data packet for reproducing said digital video information (Fig. 12 shows a reproducing apparatus that implements the features as discussed above).

**Apparatus for reproducing claim 51** is rejected for the same reasons as discussed in storage medium claim 50 above, and furthermore, cols. 15-16 discusses the apparatus for reproducing the data on a disk (DSM 10).

**Method for reproducing claim 52** is rejected for the same reasons as discussed in apparatus for reproducing claim 51 above.

**Method for recording claim 53** is rejected for the same reason as discussed in storage medium claim 50 above. The cited areas of Fujinami et al. teaching the limitations in claim 50 above applies to a recording apparatus implementing the recording method as claimed.

**Storage Medium claim 54** is rejected for the same reasons as discussed in method claim 53 and storage medium claim 50 above.

**Regarding claim 55**, Fujinami teaches the claimed wherein said control information includes control information include bit rate information of said digital video information (Fig. 3, Pack Header teaches the multiplex rate of the information in the pack).



**Claim 56** is rejected for the same reasons as discussed in claims 53 and 55 above.

**Storage medium claims 57 and 58** are rejected for the same reasons as discussed in claim 50 above.

**Apparatus claim 59** is rejected for the same reasons as discussed in claim 50 above, and furthermore, cols. 15-16 discusses the apparatus for reproducing the data on a disk (DSM 10).

**Method claim 60** is rejected for the same reasons as discussed above in apparatus claim 59.

**Method for recording claim 61 and 62** are rejected for the same reasons as discussed in claim 50 above. Furthermore, the cited areas of Fujinami et al. teaching the limitations in claim 50 above applies to a recording apparatus implementing the recording method as claimed.

**Claim 63** is rejected for the same reasons as discussed in claim 50 above and furthermore, the system of Fujinami is used for fast-forward and fast-rewind playback, which reads on the limitations claimed.

**Claim 64** is rejected for the same reasons as discussed in claim 50 above and furthermore, the system of Fujinami is used for fast-forward or fast-rewind playback, which reads on the limitations claimed.

### ***Conclusion***

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gelek Topgyal whose telephone number is 571-272-8891. The examiner can normally be reached on 8:30am -5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GT

12/16/2006



THAI Q. TRAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600